

Finally, I would like to mention about the suggestions from Unification Thought for future studies of Mind-Brain problem. The first point is that inner world and outer world have only correspondent relationship and they could not be reduced to one of them. And, the second point is that mind has an aspect of energy and that energy has an aspect of mind. I think these are very important viewpoints that lead us to productive researches.

I want to thank Mr. Akifumi Otani, Vice-President of the Unification Thought Institute of Japan, for guiding me all through my studies. And I want to thank God and everybody for giving me this opportunity to make a presentation. Thank you very much for your attention.

The Problem of Consciousness, and Unification Thought

Mr. Akifumi Otani
Vice-President, Thought Institute of Japan

The new millennium has started, but science is faced with many dilemmas to solve. One of them is the mind-brain problem, namely, the question of whether the mind derives from the brain or whether it is something that transcends it. That is also a problem of what the consciousness is. The purpose of this paper is to indicate a new direction of study. From the perspective of Unification Thought we will examine the modern scientific viewpoints.

I. How does Consciousness Come into Being?

According to the position of modern neuro-sciences, the questions such as what is consciousness and how it came into being are unsolved riddles. It is said that "consciousness is the most difficult problem to solve in the 21st century." Francis Crick says as follows:

The explanation of consciousness is one of the major unsolved problems of modern science. Indeed, the overwhelming question in neuro-biology today is the relation between the mind and the brain. In the past the mind (or soul) was regarded as something separate from the brain but interacting with it in some way. But most neuro-scientists now believe that all aspects of the mind, including its most puzzling attribute, consciousness or awareness, are likely to be explainable in a more materialistic way as *the behavior of large sets of interacting neurons* (italics added).¹⁾

Thus, most neuroscientists today think that consciousness can be explained as the "behavior of large sets of interacting neurons."

Let's consider this question from the perspective of Unification Thought. There are no objections to the view that consciousness comes into being as a result of interaction of neurons because, according to Unification Thought, all forces come into being as a result of give-and-receive action between the reciprocal elements of subject and object. Any give-and-receive action is centered on a purpose, while the original, causal force is working from behind. Through give-and-receive action, that original, causal force manifests itself as actual forces in various ways. The original force working behind give-and-receive actions can be expressed as the field since it is working universally in the cosmos.

For example, God's love is given to all humans universally. The love of God manifests itself in the family as parental love; as children's love through give-and-receive action between parents and children; as sibling's love through give-and-receive action among brothers and sisters; and as conjugal love through give-and-receive action between husband and wife.

Likewise, there exists behind the universe the original force called the Universal Prime Force, which manifests itself as the four forces such as the universal gravitation (gravity), electromagnetic force, strong force, and weak force. That means, from the standpoint of modern physics, that, prior to the beginning of the universe there existed in vacuum the Higgs field filled with potential energy. The four forces came into being through four kinds of mutual interactions. Through interactions among particles having mass, gravity came into being; through interactions among charged particles, electromagnetic force came into being; through interactions among quarks, strong force (nuclear force) came into being; and through interactions between quarks and leptons (electron, neutrino), weak force (the force affecting the beta decay) came into being. In other words, the four forces are originally one but manifest themselves as the four forces through different kinds of interactions.

It is usually explained that the life activity is realized through the interactions between cells, and between molecules. Unification Thought, however, explains that the life activity is realized through various give-and-receive actions centered on the life field, or the cosmic life, which is working from behind.

It is Harold Saxton Burr (1889-1973), former professor of medical science at Yale University, USA, who claimed to have discovered the existence of the life field. It is explained as follows:

The life field, the invisible field of electric force, enables every

living being to grow according to its design. All living beings, whether fungi, plants, or animals, are born and formed according to this eternal blueprint. They constantly receive various messages coming from far away places in the universe. The waves they effect instantly cover the entire earth.²⁾

The same thing can be applied to the problem of the consciousness. It is usually explained that mental action occurs through the interaction of neurons alone. According to Unification Thought, however, the field of consciousness, or the cosmic consciousness, is working behind the interactions.

Within a TV set or a radio, various elements are connected to form a circuit. Yet, neither sounds nor pictures can appear through the action of the circuit alone. There must exist electric waves coming from broadcasting stations. Those electric waves are caught by the TV set or radio and manifest themselves as sounds and pictures through interactions among various elements within the circuit. Life and consciousness also appear through the same principle. Life activity and mental activity appear when the cosmic life or the cosmic consciousness is working from behind.

It must be pointed out, however, that not only give-and-receive actions among neurons within the physical brain but also give-and-receive actions in the dimension of spirit (spirit self) must be involved in the mental activity. It is because the functions of intellect, emotion, and will are active and spiritual. Animals also have intellect, emotion and will. However, intellect, emotion and will of humans and those of animals are essentially different. Intellect, emotion and will of humans are creative, while those of animals are not. In this paper I am referring to the human creative mind.

What comes into being through interaction among neurons without involvement by spiritual being (spirit self) is merely functions on the level of animal instinct. In other words, in order for the mind of intellect, emotion, and will to function, give-and-receive actions within the spirit self are needed. Within the spiritual brain, there must be interactions among spiritual elements (to be called spiritual neurons).

Both the physical self and the spirit self of a human being have the dual characteristics of *Sungsang* and *Hyungsang*. Accordingly, the physical self and the spirit self have the active *Sungsang* element of the physical mind and the spirit mind respectively. In a human being, the physical mind and the spirit mind are united as the human mind. Therefore, behind physical and spiritual neuron interactions, the active mind that integrates and controls those

interactions are at work. The above-mentioned explanation by the Unification Thought view is summarized in Figure 1.

Here, the cosmic consciousness refers to the consciousness working everywhere in the universe. It is derived from the mind of God (the Original Sungsang). The origin and driving force of the human consciousness is the cosmic consciousness. It is the same as saying The human consciousness is different, depending on each person. So are the wiring of neurons within the brain of the physical body, and that of the brain of the spirit self. The brain of the physical body constantly changes in the lifetime of the body and comes to cease its function at the end of the physical life. The brain of the spirit self, however, grows during the lifetime of the physical body and exists eternally after the physical death. It is because of the existence of the spirit self that a man or woman maintains his or her unchanging personality while alive physically and even after the physical death.

In his text on creative evolution, Henri Bergson (1859-1941), a philosopher, says that the evolution of living beings is guided by "lan vital (vital impetus)," which he refers to as "supraconsciousness." He even attaches the name of God to the vital impetus. Alfred N. Whitehead (1861-1947), who advocated process theology, says that "the Universe is made up of myriad pulses of experience that embody material aspects as well as psychological aspects as feeling and value."³⁾ He was talking about the cosmic consciousness.

In his book *The Planetary Mind*, Arne A. Wyller, an astronomer and philosopher, writes about the consciousness covering the earth by saying that "humanity and all other life forms in the past and present lie embedded in an invisible Planetary Mind Field that pervades the entire Earth."⁴⁾

While Wyller insisted on the existence of the consciousness covering the earth, Sir Fred Hoyle, an astrophysicist, says in his *Intelligent Universe* that there exists in an unidentified interstellar cloud a higher intelligence which sends out at random snippets of genetic code fragments — partial genetic messages — in space. In contrast to them, Unification Thought thinks that the cosmic consciousness fills the entire universe including the earth. Furthermore, in order for our mind or consciousness to come into being, the existence of souls (spirit self) is a prerequisite. Eccles and Penfield clearly insisted on this point.

Eccles says, "Reference should be made to the discussion on the creation of the *psyche* by infusion into the developing embryo. This divinely created *psyche* should be central to all considerations of immortality and of self-recognition."⁵⁾ Penfield also says in *The*

Mystery of the Mind, "From my standpoint as a medical doctor, I would like to give an opinion of mine. It is related to all the attempts to explore the human nature, based on the theory that the mind is an independent existence. This view may be regarded as one that affirms the immortality of souls."⁶⁾

Today materialistic neuroscientists hate the spiritual being, referring to it as a horrible homunculus, an ugly Penfield's homunculus, or the infamous little person inside the brain. However, these scientists are in denial. It is a dogmatic attitude of those emotionally prejudiced. Until today, the existence of the spirit world has been an obvious reality for those who have spiritual ability but it has not been a reality understandable for everybody. From now on, however, science will give clear answers to the existence of the spirit world in such a way that everybody can understand.

The materialist scientists say that, if the homunculus is hypothesized, it becomes necessary for "the homunculus of the homunculus" which deals with the information received by the homunculus. That argument is faulty just like the argument that, if God who created the universe exists, there must exist God who had created that God. The universe is a being within time and space, but God is the being existing beyond time and space. Therefore, there cannot be such being as the cause of God.

The same thing can be said about consciousness. The brain itself has no consciousness, but the human mind of the spirit self, namely spirit mind, does. Consciousness has intellectual, emotional, and volitional functions, which operate on their own. In other words, there is no need for "intellect of intellect," "emotion of emotion," and "will of will," which make the functions of intellect, emotion, and will operate.

The fact that the human mind is individualistic cannot be understood, either, without recognizing the spirit self of a human being. Susan A. Greenfield, a British professor of pharmacology says that "By looking at a single human brain it is educated guesswork at best to determine whether the person was male or female. It would, however, be completely impossible to tell whether this particular man or woman had been kind or possessed a sense of humor."⁷⁾ The individual personality of each human being is derived not from the brain but from the mind of spirit self of the person.

II. How can Spirit and Matter Interact?

How can the mind and the brain, namely spirit and matter, interact with one another? With regard to this question, I am going to briefly explain various views by philosophers and scientists since Descartes, and then present the view of Unification Thought.

1. Descartes

Descartes regarded spirit and matter as totally heterogeneous, and thus was a dualist. He thought that the pineal gland inside the brain was the point of contact between the mind and the body. However, the pineal gland itself is material. Therefore, he gives no answer to the question of how spirit and matter can make interaction.

2. Bergson

Like Spinoza, Bergson believed that spirit and matter manifest two aspects of a being. If so, however, their interaction cannot help becoming mechanical. Being so, it becomes difficult to explain the autonomous, controlling action of spirit. Furthermore, when the physical self dies, soul (spirit self) also disappears. Accordingly, immortality of souls and the existence of the spiritual world are both denied.

3. Whitehead

Like Spinoza and Berson, Whitehead rejected the notion that mind and body are separate entities and thought that they are but separate aspects of the same reality. Unlike Spinoza's static view of the universe with no development, however, he had a dynamic view of the created universe.

4. David Bohm

David Bohm, a British theoretical physicist, probed into the world of consciousness his differing specialty notwithstanding, and developed a unique view of mind and matter. He thought that mind and matter are ultimately fused. He says,

If the immanence is pursued more and more deeply in matter, I believe we may eventually reach the stream, which we also experience as mind, so that *mind and matter fuse* (italics added).⁸⁾

Furthermore, Bohm says of the ultimate actuality, "So we are led to propose further that the more comprehensive, deeper and more

inward actuality is neither mind nor body but rather a yet higher dimensional actuality, which is their common ground and which is of a nature beyond."⁹⁾ It can be said that the ultimate actuality is God. Thus, Bohm regards God as the common ground of mind and body, while transcending them.

5. Eccles

John C. Eccles maintained that the mind and the brain are different beings, but that the mind and the brain interact at presynaptic vesicular grids, which are very tiny organizations of the synapse, without infringing the conservation laws of physics.

Furthermore, Eccles discusses elemental (or unitary) mental events called the psychon and also the dendron, the basic receptive units of the cerebral cortex each of which has about 200 neurons in its region. According to him, interaction between mind and body can be considered on the basis of the unitary interaction of a psychon with its dendron. He also explains that the interaction of psychon with its dendron takes place selectively at the presynaptic vesicular grid (PVG) of the dendron.¹⁰⁾

6. Photon Mediation Theory

Arne A. Wyller thinks that the photon may act as a mediator between the mind field and the matter field. In other words, it is the photon that enables spirit and matter to interact. He explains as follows:

Within our modern scientific framework, it appears feasible to explore the possibility that the light particle — the photon that holds these atoms together and travels endlessly between them — serves a twofold purpose in the Universe. In the physicist's material Universe, it acts as a matter "glue" on the atomic level, but in another sense it may well act as a mediator between the Mind Field and the matter fields. Or perhaps it is the Mind Field. If so, then the photon has a Janus face: Facing the material world it is matter glue, whereas facing the world of intelligence it takes on the characteristics of mind glue or of mind itself.¹¹⁾

Former Brookhaven Laboratory scientist Tom Stonier also makes a daring suggestion in *Information and the Internal Structure of the Universe* that a photon is made up of two components: an energy component and an information component.¹²⁾ According to him, since a photon has two aspects as spirit and matter, spirit and matter can have interaction with the photon as the mediator.

7. Unification Thought View

According to Unification Thought, spirit and matter are different entities, but they are one in their ultimate origin. In other words, Unification Thought regards God, the origin of the universe, as the Being harmonizing the dual characteristics of mental element and material element. This view is neither dualism nor monism. It is called Unitism or *the Theory of Oneness* in which dual characteristics are united.

In the world of phenomena, the mind and the brain, or spirit and matter, are different entities. However, if they are traced back to their origin, there is no longer the boundary between spirit and matter. Both are united as one. This implies that spirit and matter have common element although they are different. Accordingly, the spiritual action is conveyed to body, which is material, and also the material action is conveyed to spirit.

David Bohm's view that spirit and matter, which are different, are united at their origin is similar to the view of Unification Thought. According to Unification Thought, however, spirit and matter are not completely fused as in David Bohm. God is the being with dual characteristics. Namely, God is the one being with dual characteristics of Original *Sungsang* and Original *Hyungsang*, which is the source of spirit and matter respectively.

In God, spirit and matter are the dual characteristics of the one being. In the phenomenal world, a spiritual being and a material being are different entities. The spiritual being, which is derived from God, has the dual characteristics of *Sungsang* and *Hyungsang* (namely, spiritual element and material element). So has the material being, which is also derived from God. The difference between them is that, in the spiritual being, the *Sungsang* element is much stronger than the *Hyungsang* element, and that, in the material element, the *Hyungsang* element is much stronger than the *Sungsang* element. Therefore, the mind, which is the spiritual being, and the brain, which is the material being, have common element between them, so they can engage in the mutual interaction between them.

Modern physics has clarified that, in the microscopic world, wave nature and particlenature are united, and we cannot say that an elementary particle is a particle or a wave: it appears as a particle in one case, and as a wave in another. But in the macroscopic world, a corporeal being and a wave are different phenomena. A similar argument can be given to the relation of spirit and matter: they are different in the phenomenal world but they are united in the causal world.

It can be said that the attempts by Eccles, Arne Wyller, and Stonier to explore interaction between spirit and matter are in the right direction. I foresee that the question of interaction between spirit and matter will be further clarified from that point of view in the future. The above mentioned various views about the interaction between mind and brain as well as the Unification Thought view are summarized in Figure 2.

Figure 1. The Activity of Love, Force, Life, and Consciousness through the Give-and-Receive Action

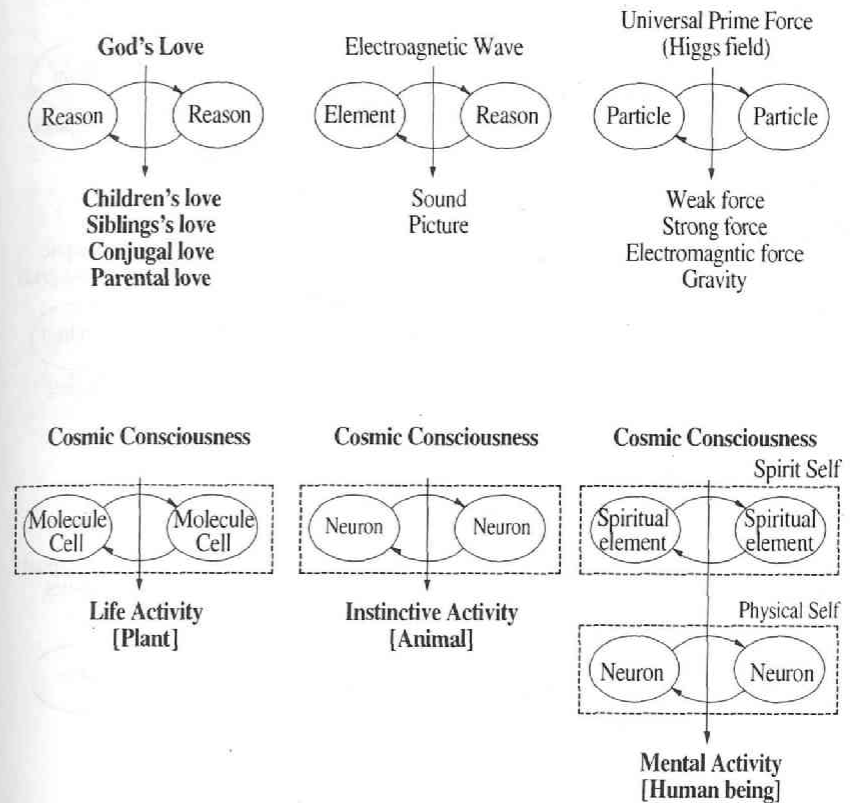
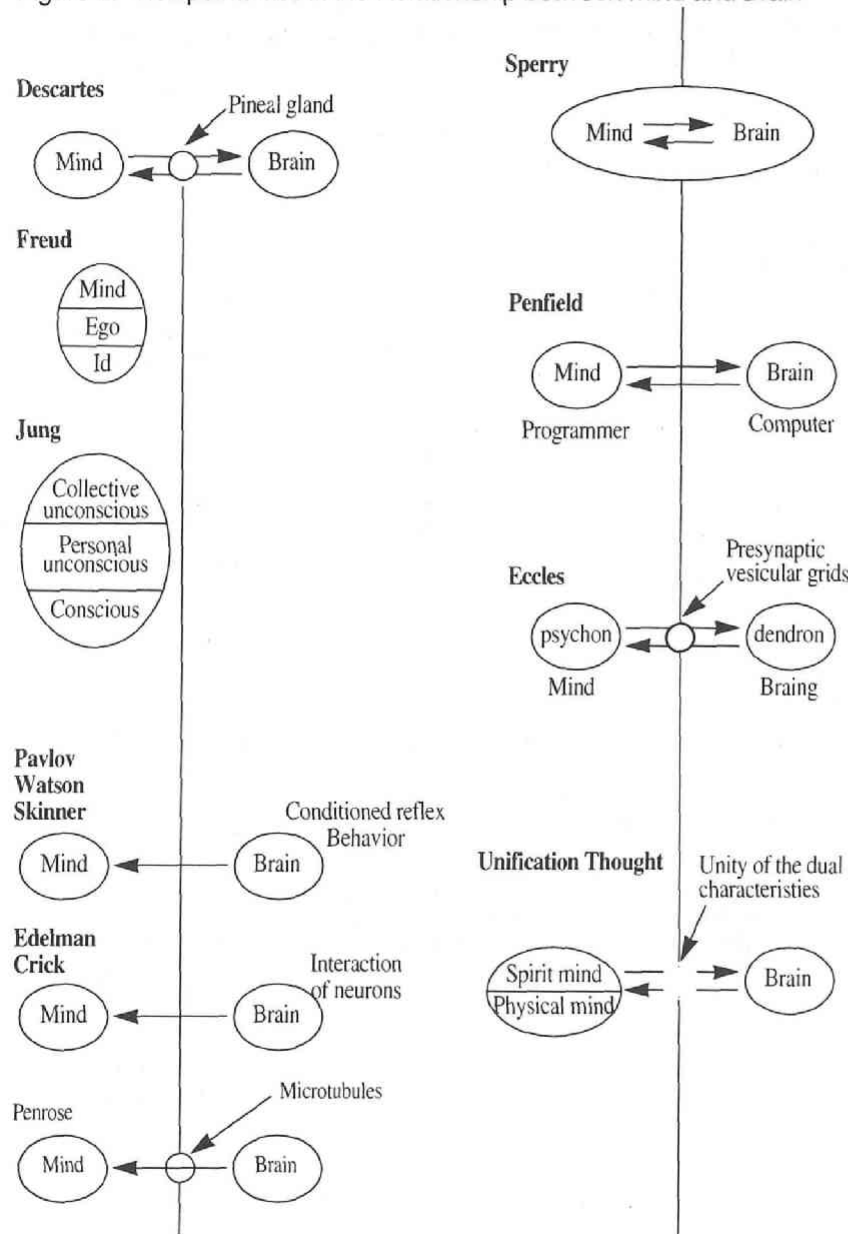


Figure 2. Viewpoints about the Relationship between Mind and Brain



Note

- 1) Rita Carter, *Mapping the Mind* (Berkeley and Los Angeles: University of California Press, 1999), 204.
- 2) Harold S. Burr, *Blueprint for Immortality* (Japanese Version) (Tokyo: Nihon-Kyobun-sha, 1988), An explanation by the publisher at the cover of the book.
- 3) Arne A. Wyller, *The Planetary Mind* (Aspen, Colorado: MacMurray & Beck, Inc., 1996), 187.
- 4) *Ibid.*, 6.
- 5) John C. Eccles and Daniel N. Robinson, *The Wonder of Being Human Human* (New York: The Free Press, 1984), 176.
- 6) Wider Penfield, *The Mystery of the Mind* (Japanese Version) (Tokyo: Hosei University Press, 1987), 145-146.
- 7) Susan A. Greenfield, *The Human Brain* (New York: Brockman Inc., 1997), 121.
- 8) Ken Wilber, ed., *The Holographic Paradigm and Other Paradoxes* (Boston: Shambhala, 1985), 193.
- 9) Arne A. Wyller, *The Planetary Mind*, 209.
- 10) John C. Eccles, *How the Self Controls Its Brain* (Berlin: Springer-Verlag, 1994), 88.
- 11) *Ibid.*, 219.
- 12) *Ibid.*, 225.